

The Brattle Group

ARCHITECTING THE FUTURE OF DYNAMIC PRICING



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National Association of Regulatory Utility Commissioners

Summer Meetings

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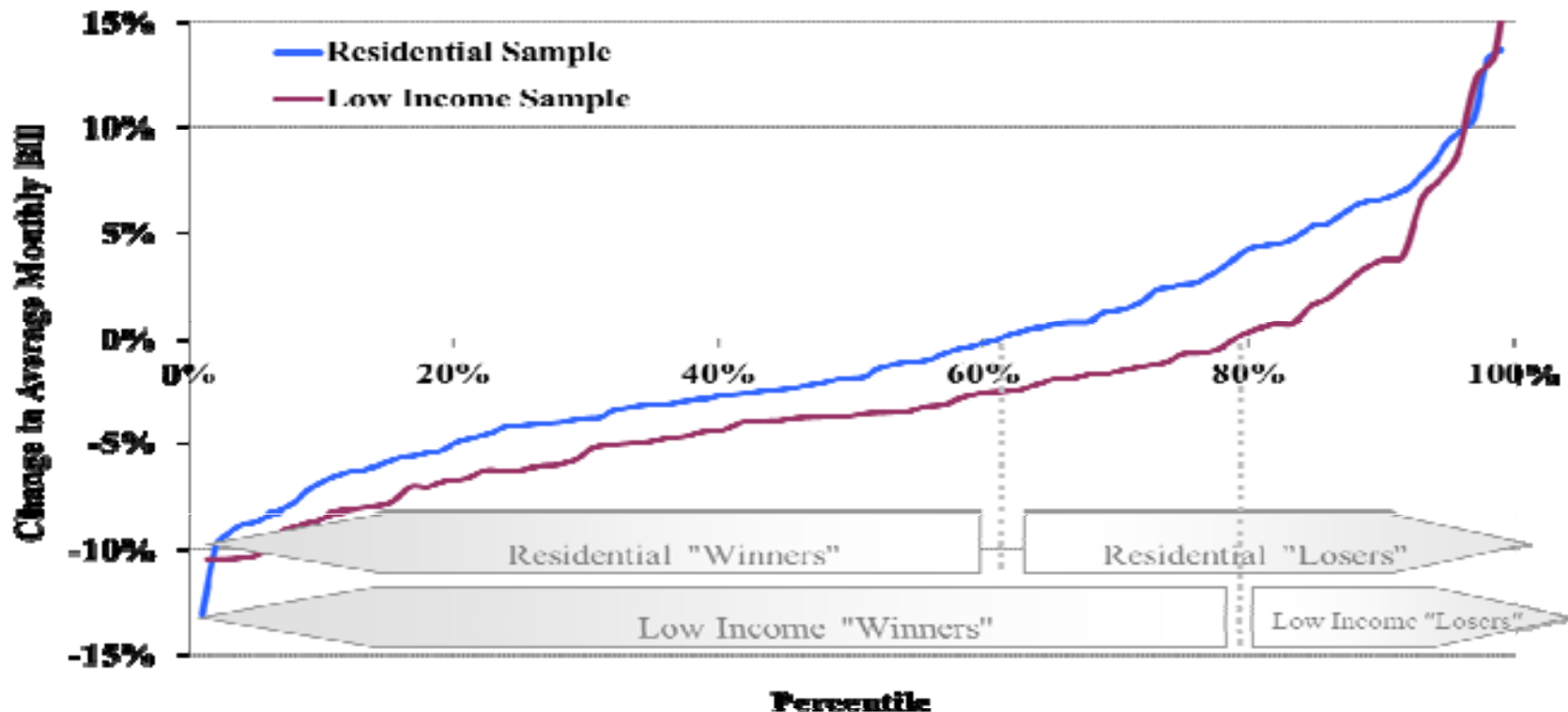
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As many as 80% of *low income* customers may be over-paying for electricity today

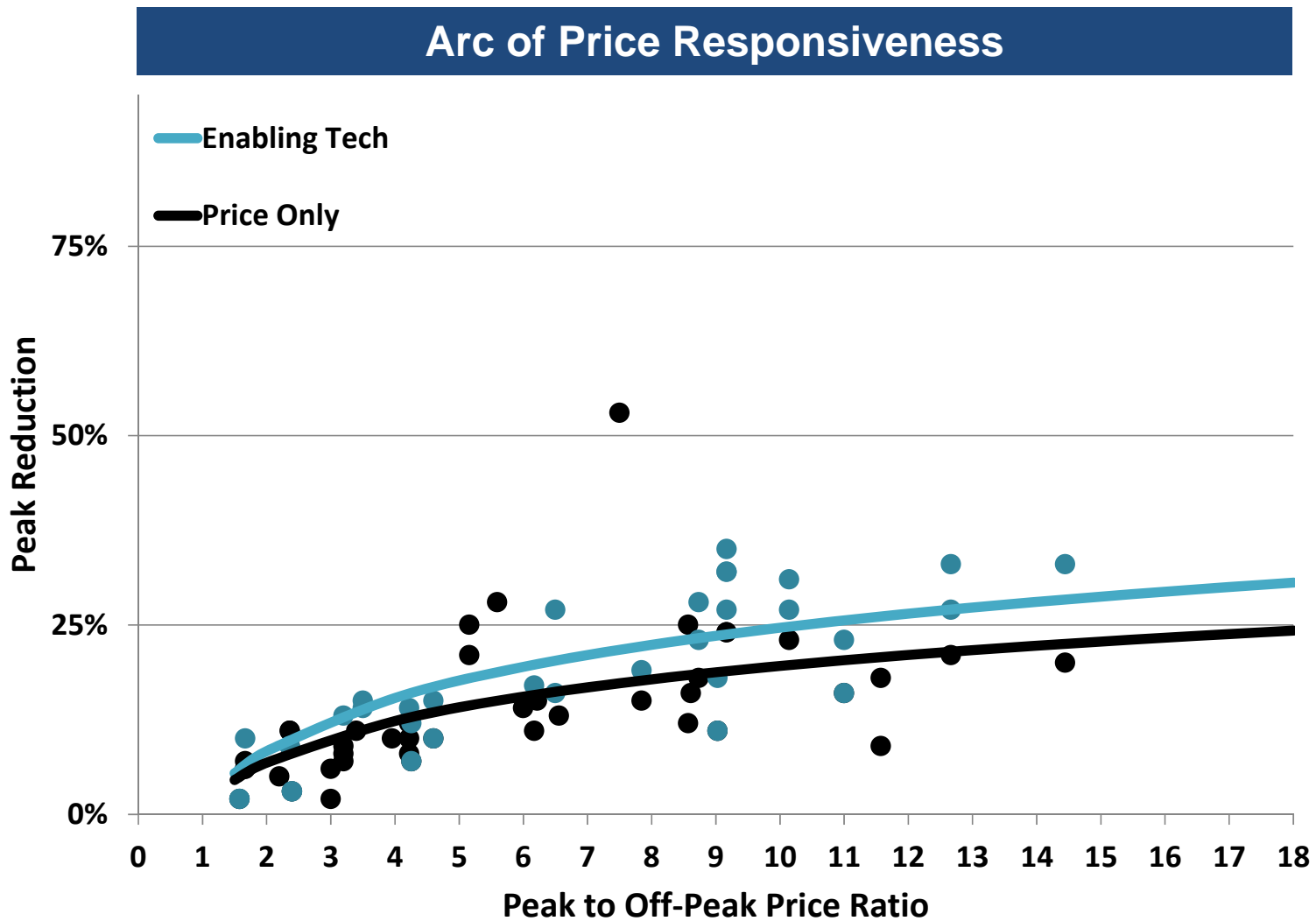
**Distribution of Dynamic Pricing Bill Impacts
Residential and Low Income Customers on CPP Rate (Design #2)**



The price of flat-rate pricing

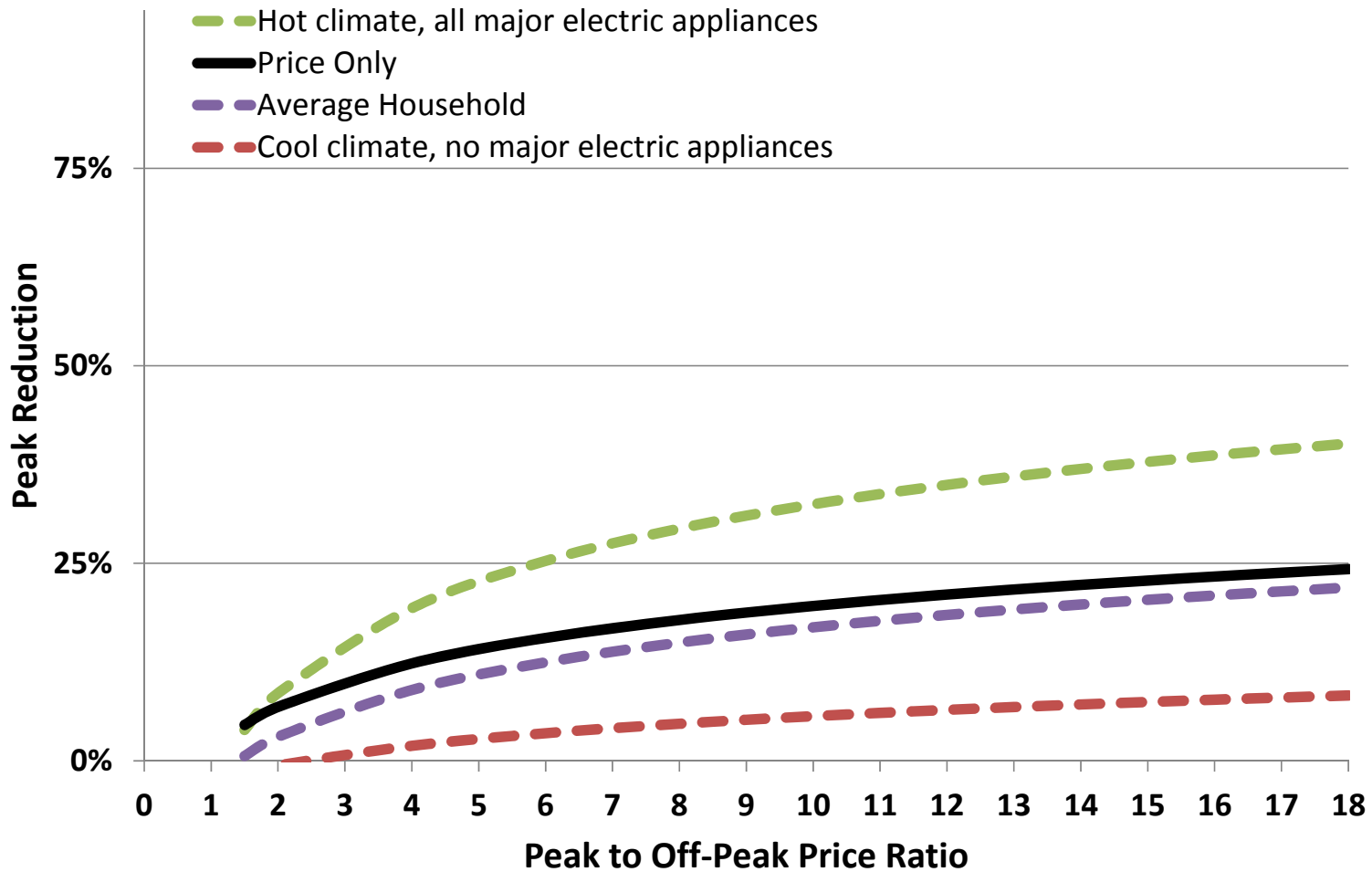
- Under flat rate pricing, inter-customer subsidies may amount to \$3 billion/year
- Collectively, all customers may be overpaying for electricity by about \$7 billion/year
 - Using the FERC Staff estimate of 92 GW saved under universal dynamic pricing, and valuing demand response at \$75/kW-year
- But will customers respond?

Yes, as seen in scores of pricing experiments during the past decade



And as also seen in the PURPA pilots with TOU rates three decades ago

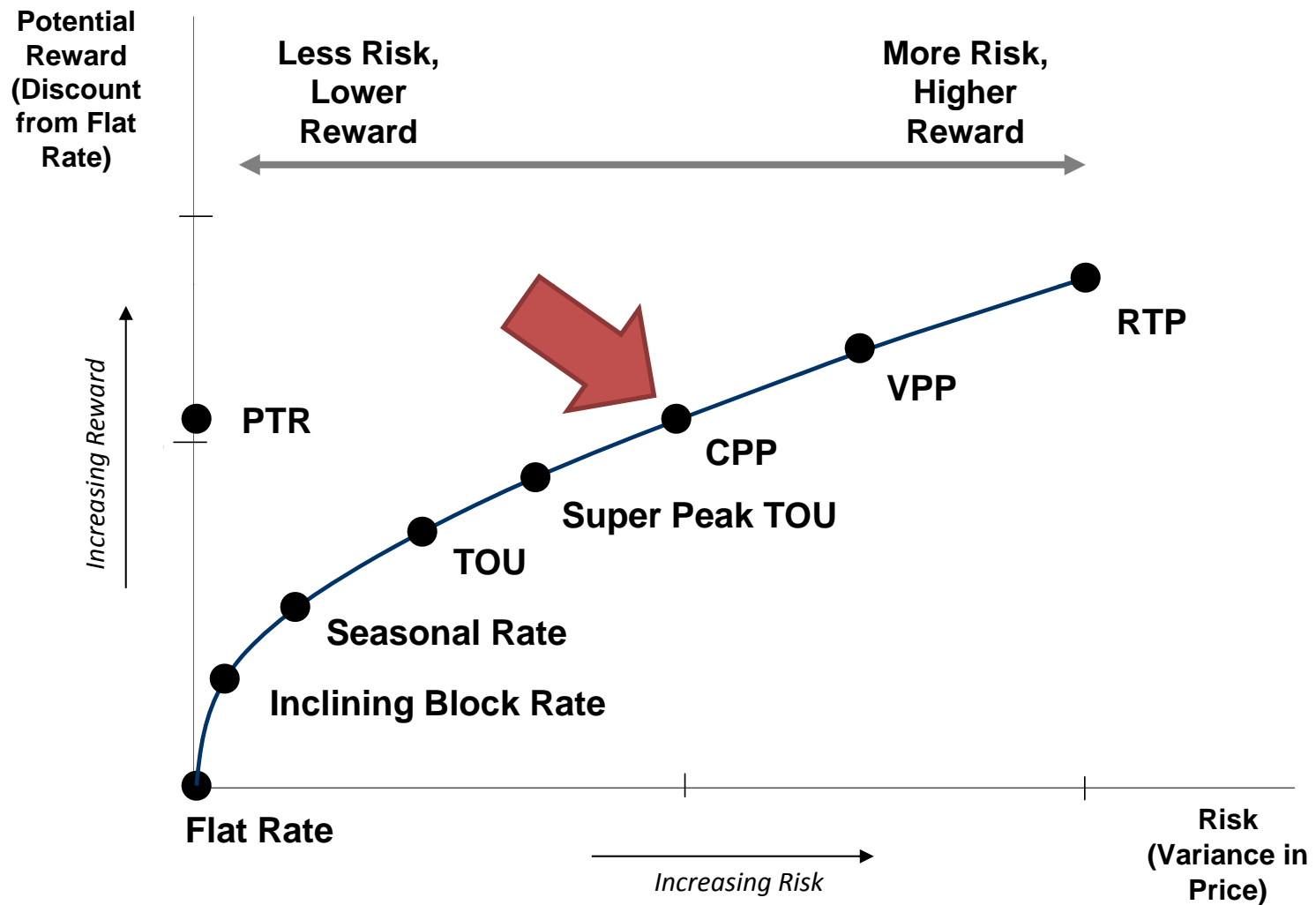
Arc of Price Responsiveness (1982 + current price-only)



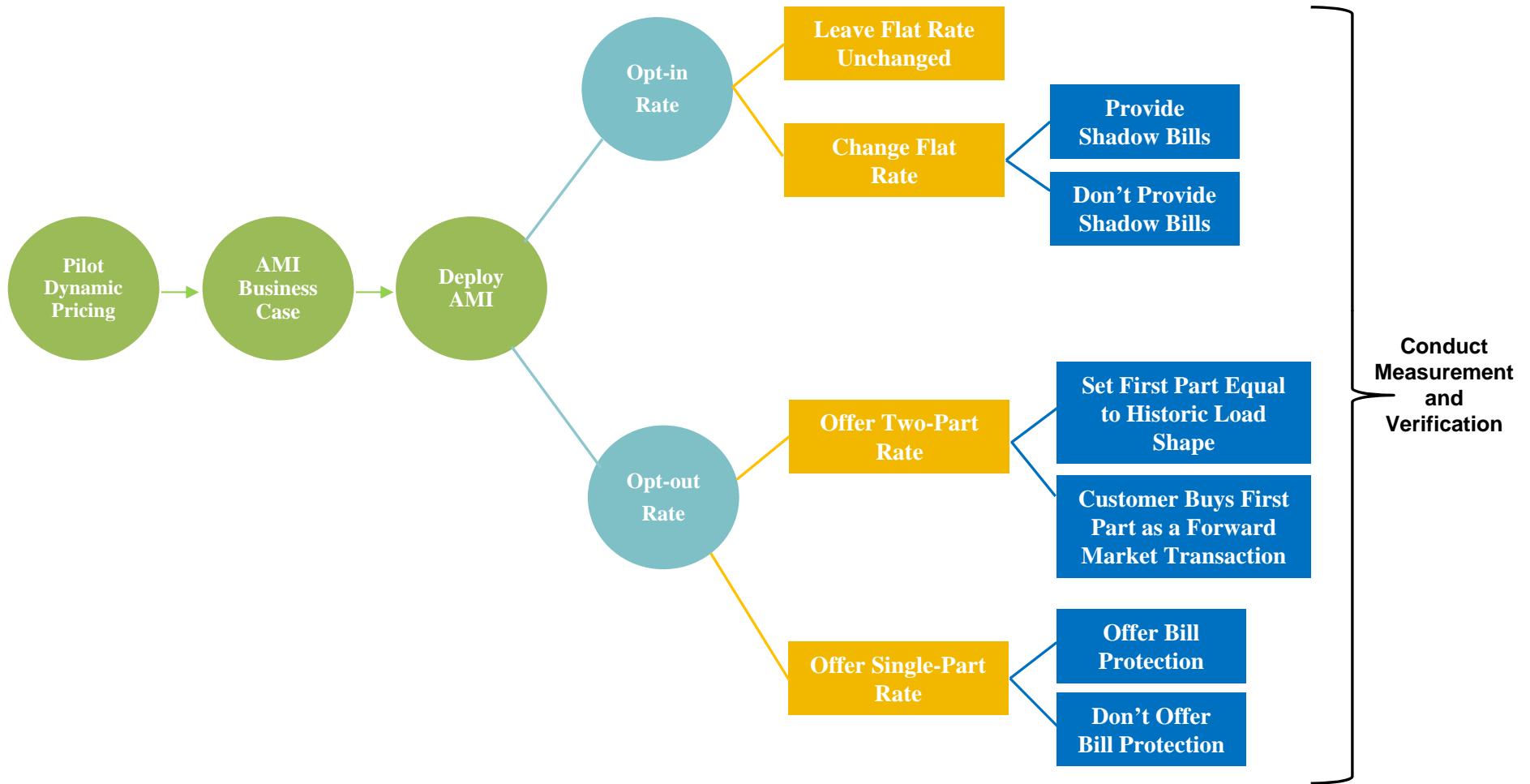
Of course, dynamic pricing requires smart meters

- 33% of the nation's 114 million households are already on smart meters
- 50% are expected to be on smart meters in another five years
- Dynamic pricing is expected to roll out in the Mid-Atlantic region, followed by the Midwest and California
- In Arizona, TOU pricing has been rolled out successfully

The power of choice



Making the transition to dynamic pricing



Source documents

(Dynamic pricing bibliography available on request)

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Biography – Ahmad Faruqui



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Ahmad Faruqui is a principal with *The Brattle Group* who specializes in the analysis, design and evaluation of smart grid strategies involving the consumer. He has consulted with more than 50 utilities and transmission system operators around the globe and testified or appeared before a dozen state and provincial commissions and legislative bodies in the United States and Canada. He has also advised the Alberta Utilities Commission, the Edison Electric Institute, the Electric Power Research Institute, the Federal Energy Regulatory Commission, the Institute for Electric Efficiency, the Ontario Energy Board, the Saudi Electricity and Co-Generation Regulatory Authority, and the World Bank. His work has been cited in publications such as *The Economist*, *The New York Times*, and *USA Today* and he has appeared on Fox News and National Public Radio. The author, co-author or editor of four books and more than 150 articles, papers and reports on efficient energy use, he holds a Ph.D. in economics and an M.A. in agricultural economics from The University of California at Davis, where he was a Regents Fellow, and B.A. and M.A. degrees in economics from The University of Karachi with the highest honors.

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